## The past, present and future of psychiatric diagnosis

## **ALLEN FRANCES**

Department of Psychiatry, Duke University, Durham, NC, USA

Modern descriptive psychiatry was born two centuries ago in the classification of Pinel, was later systematized in the textbook of Kraepelin, and was then expanded by Freud to include outpatient presentations previously seen by neurologists. Brain science also flourished in the second half of the 19th century and has enjoyed a second revolutionary advance during the past thirty years. Unfortunately, however, the attempt to explain psychopathology using the remarkable findings of neuroscience has thus far had no impact on psychiatric diagnosis or treatment. The crucial translation from basic science to clinical practice is necessarily even more difficult in psychiatry than in the rest of medicine, because the human brain is the most complicated thing in the known universe and reveals its secrets slowly and in small packets.

Psychiatric diagnosis must therefore still rely exclusively on fallible subjective judgments, not on objective biological tests. In the not too distant future, we will finally have laboratory methods for diagnosing Alzheimer's disease, but there is no pipeline of promising tests for any of the other mental disorders. Biological findings, however exciting, have never been robust enough to become testworthy, because the within-group variability always drowns out the between-group differences. It appears certain that we will be stuck with descriptive psychiatry far into the distant future.

There have been two crises in confidence in descriptive psychiatry: the first was in the early 1970s, the second is occurring right now with the publication of DSM-5. The earlier crisis was occasioned by two highly publicized studies that exposed the inaccuracy of psychiatric diagnosis and threw into serious question the credibility of psychiatric treatment. A landmark study proved that British and US psychiatrists came to radically different diagnostic conclusions when viewing videotapes of the same patient (1). And Rosenhan (2) exploded a bombshell when his graduate students were kept in psychiatric hospitals for extended stays after claiming to hear voices, despite the fact that they behaved completely normally once they were admitted. Was psychiatry entitled to a place among medical specialties if its diagnoses were so random and its treatments so nonspecific, especially when the other specialties were just then becoming increasingly scientific?

Psychiatry's response was dramatic and effective. The DSM-III, published in 1980, featured detailed definitions of mental disorders that, when used properly, achieved reliabilities equivalent to much of medical diagnosis. The DSM-III soon stimulated its own revolution, quickly transforming psychiatry from research stepchild to research

darling; in most medical schools, the department of psychiatry now ranks behind only internal medicine in research funding.

But psychiatric diagnosis is now facing another serious crisis of confidence, this time caused by diagnostic inflation. The elastic boundaries of psychiatry have been steadily expanding, because there is no bright line separating the worried well from the mildly mentally disordered.

The DSMs have introduced many new diagnoses that were no more than severe variants of normal behavior. Drug companies then flexed their powerful marketing muscle to sell psychiatric diagnoses by convincing potential patients and prescribers that expectable life problems were really mental disorders caused by a chemical imbalance and easily curable with an expensive pill.

We are now in the midst of several market-driven diagnostic fads: attention-deficit/hyperactivity disorder (ADHD) has tripled in rates in the past twenty years; bipolar disorder has doubled overall, with childhood diagnosis increasing forty-fold; and rates of autistic disorder have increased by more than twenty-fold (3). In the US, the yearly prevalence of a mental disorder is reported at 20–25%, with a 50% lifetime rate (4), and Europe is not far behind (5). A prospective study of young adults in New Zealand has reported much higher rates (6) and another of teenagers in the US found an astounding cumulative 83% rate of mental disorders by age 21 (7).

The expanding concept of mental disorder brings with it unfortunate unintended consequences. Only about 5% of the general population has a severe mental disorder; the additional 15–20% have milder and/or more temporary conditions that are placebo responsive and often difficult to distinguish from the expectable problems of everyday life. Yet an amazing 20% of the US population now takes a psychotropic drug (8) and psychotropic drugs are star revenue producers – in the US alone \$18 billion/year for antipsychotics, \$12 billion for antidepressants, and \$8 billion for ADHD drugs (9). And 80% of psychotropic drugs are prescribed by primary care physicians with little training and insufficient time to make an accurate diagnosis (10). There are now more overdoses and deaths from prescribed drugs than from street drugs.

And the investments in psychiatry are badly misallocated, with excessive diagnosis and treatment for many mildly ill or essentially normal people (who may be more harmed than helped by it), and relative neglect of those with clear psychiatric illness (whose access to care in the US has been sharply reduced by slashed mental health budgets) (11). It is no accident that only one third of people with severe depression get any mental health care or that a large percentage of the swollen US prison population consists of psychiatric patients with no place else to go (12). A recent meta-analysis shows the results of psychiatric treatment to equal or surpass those of most medical specialties (13), but the treatments must be delivered to those who really need them, not squandered on those likely to do as well or better on their own.

This disparity between treatment need and treatment delivery is about to get much worse. The DSM-5 has introduced several new disorders at the fuzzy and populous border with normal and has also loosened requirements for many of the existing disorders. The biggest problems are removing the bereavement exclusion for major depressive disorder, adding a very loosely defined somatic symptom disorder, reducing the threshold for adult ADHD and post-traumatic stress disorder, adding a diagnosis for temper tantrums, introducing the concept of behavioral addictions, combining substance abuse with substance dependence, and adding mild neurocognitive disorder and binge eating disorder.

The DSM-5 has been prepared without adequate consideration of clinical risk/benefit ratios and has not calculated the large economic cost of expanding the reach of psychiatry. It has been unresponsive to the widespread professional, public, and press opposition that was based on the opinion that its changes lacked sufficient scientific support and often defied clinical common sense. And a petition endorsed by fifty mental health associations for an independent scientific review, using methods of evidence based medicine, was ignored.

There will be no sudden paradigm shift replacing descriptive psychiatry with a basic explanatory understanding of the pathogeneses of the different mental disorders. This will be the gradual and painstaking work of many decades. In the meantime, we must optimally use the tools of descriptive psychiatry to ensure reliable and accurate diagnosis and effective, safe, and necessary treatment. It is time for a fresh look. The preparation of the ICD-11 provides an opportunity to re-evaluate

psychiatric diagnosis and to provide cautions against its over-inclusiveness.

## References

- Kendell RE, Cooper JE, Gourlay AJ et al. Diagnostic criteria of American and British psychiatrists. Arch Gen Psychiatry 1971; 25:123-30.
- 2. Rosenhan DL. On being sane in insane places. Science 1973;179: 250-8.
- Batstra L, Hadders-Algra M, Nieweg EH et al. Child emotional and behavioral problems: reducing overdiagnosis without risking undertreatment. Dev Med Child Neurol 2012;54:492-4.
- Kessler RC, Berglund P, Demler O et al. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005;6:593-602
- de Graaf R, ten Have M, van Gool C et al. Prevalence of mental disorders and trends from 1996 to 2009. Results from the Netherlands Mental Health Survey and Incidence Study-2. Soc Psychiatry Psychiatr Epidemiol 2012;47:203-13.
- Moffitt TE, Caspi A, Taylor A et al. How common are common mental disorders? Evidence that lifetime prevalence rates are doubled by prospective versus retrospective ascertainment. Psychol Med 2010;40:899-909.
- Copeland W, Shanahan L, Costello EJ et al. Cumulative prevalence of psychiatric disorders by young adulthood: a prospective cohort analysis from the Great Smokey Mountains Study. J Am Acad Child Adolesc Psychiatry 2011;50:252-61.
- Medco Health Solutions Inc. America's state of mind. www. medco.com.
- 9. IMS Institute for Healthcare Informatics. The use of medicines in the United States: review of 2011. www.imshealth.com.
- Mark TL, Levit KR, Buck JA. Datapoints: psychotropic drug prescriptions by medical specialty. Psychiatr Serv 2009;60:1167.
- Wang PS, Aguilar-Gaxiola S, Alonso J et al. Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO World Mental Health Surveys. Lancet 2007; 370:841-50.
- Fuller Torrey E. Out of the shadows: confronting America's mental illness crisis. New York: Wiley, 1997.
- 13. Leucht S, Hierl S, Kissling W et al. Putting the efficacy of psychiatric and general medicine medication into perspective: review of meta-analyses. Br J Psychiatry 2012;200:97-106.

DOI 10.1002/wps.20027